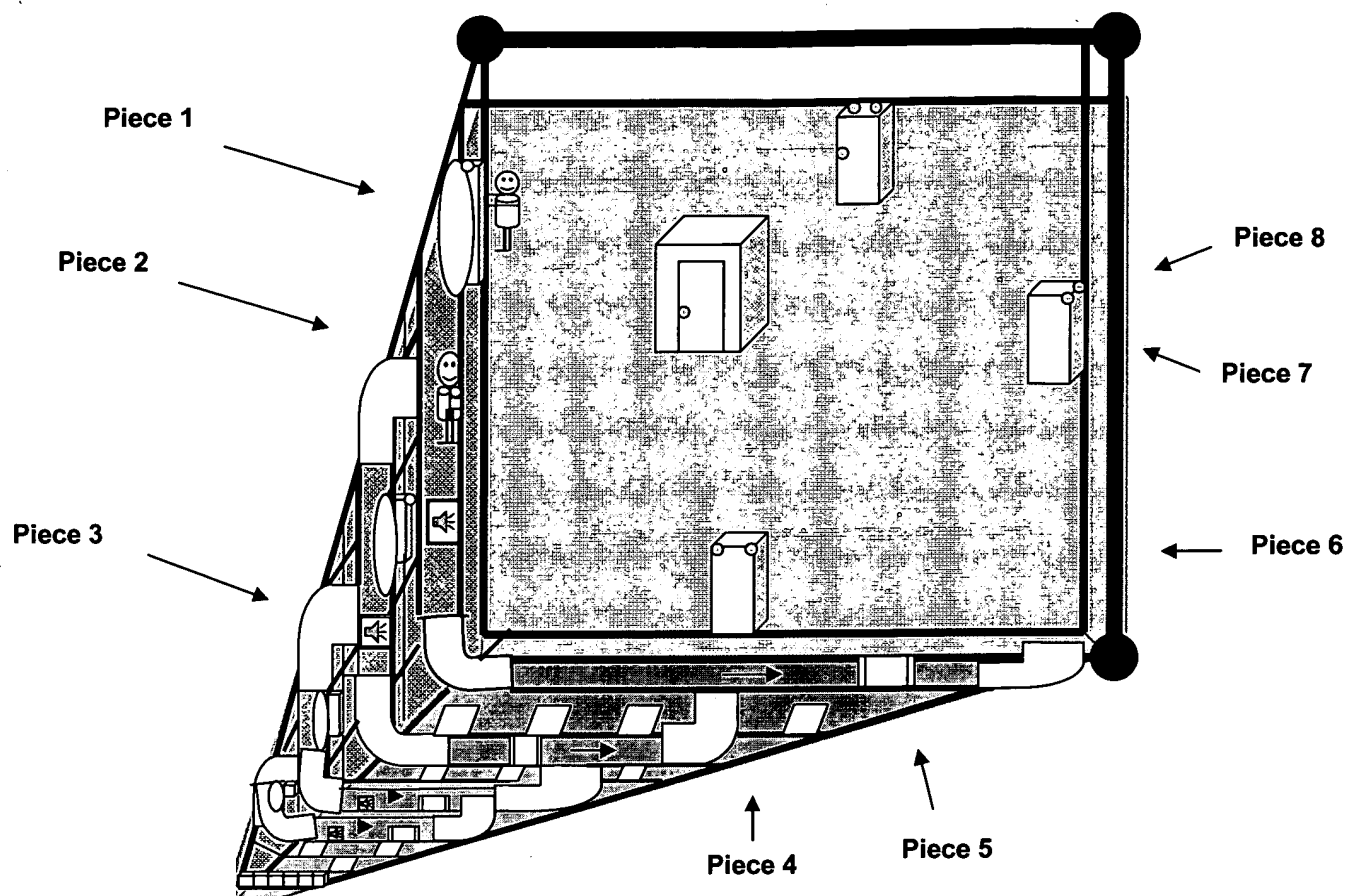




# **THE INSTANTANEOUS EVACUATION TUBE**

- The instantaneous evacuation tube is permanently installed on the exterior of any given building. From top to bottom, the evacuation tube wraps around the building and opens up at the bottom exit at an angle of declination as shown by piece number 1 corresponding to the image on page 2. The angle displayed has been selected as a proper means of evacuating persons at a quick yet safe speed. -During a fire a person will activate a handle. At this moment the air tank's motor starts and a valve opens, which allow air to be pumped into a pipe. (As shown by piece number 2 on page 5)
- Air immediately flows into a pipe that runs the length of the evacuation tube that is accessible from each and every floor. At the exit, the pipe is connected to a permanently installed inflatable mat that also receives the air. Subsequently, an immediate compression will occur and the mat will quickly inflate. This compression will also push the lid to the evacuation tube off and propel the quickly expanding mat outside. Once fully inflated, the mat will stay in place attached to the exit but not within the evacuation tube. This is accomplished with retaining cables. At this point, the mat is ready to cushion the arrival of evacuees, ensuring their safety.



#### Indication of piece

**Piece 1 The Instantaneous Evacuation tube**

**Piece 2 Person evacuated**

**Piece 3 Movement detector**

**Piece 4 Arrow indication the way out person**

**Piece 5 Air Trap**

**Piece 6 The building**

**Piece 7 Emergency exit door**

**Piece 8 Red and green lights for evacuation**

**INCORPORATION BY REFERENCE OF MATERIAL SUBMITTED**

**ON A COMPACT DISC**

**( see 37 CFR 1. 52(e)(5) and MPEP 608.05. computer program listing**

**(37 CFR 1.96(c) sequence listings (37 CFR1.82(c)**

**And tables having more than 50 pages of text are required to be submitted on**

**Compact disks**

- Please note that though my documents are under 50 pages, i will still be**

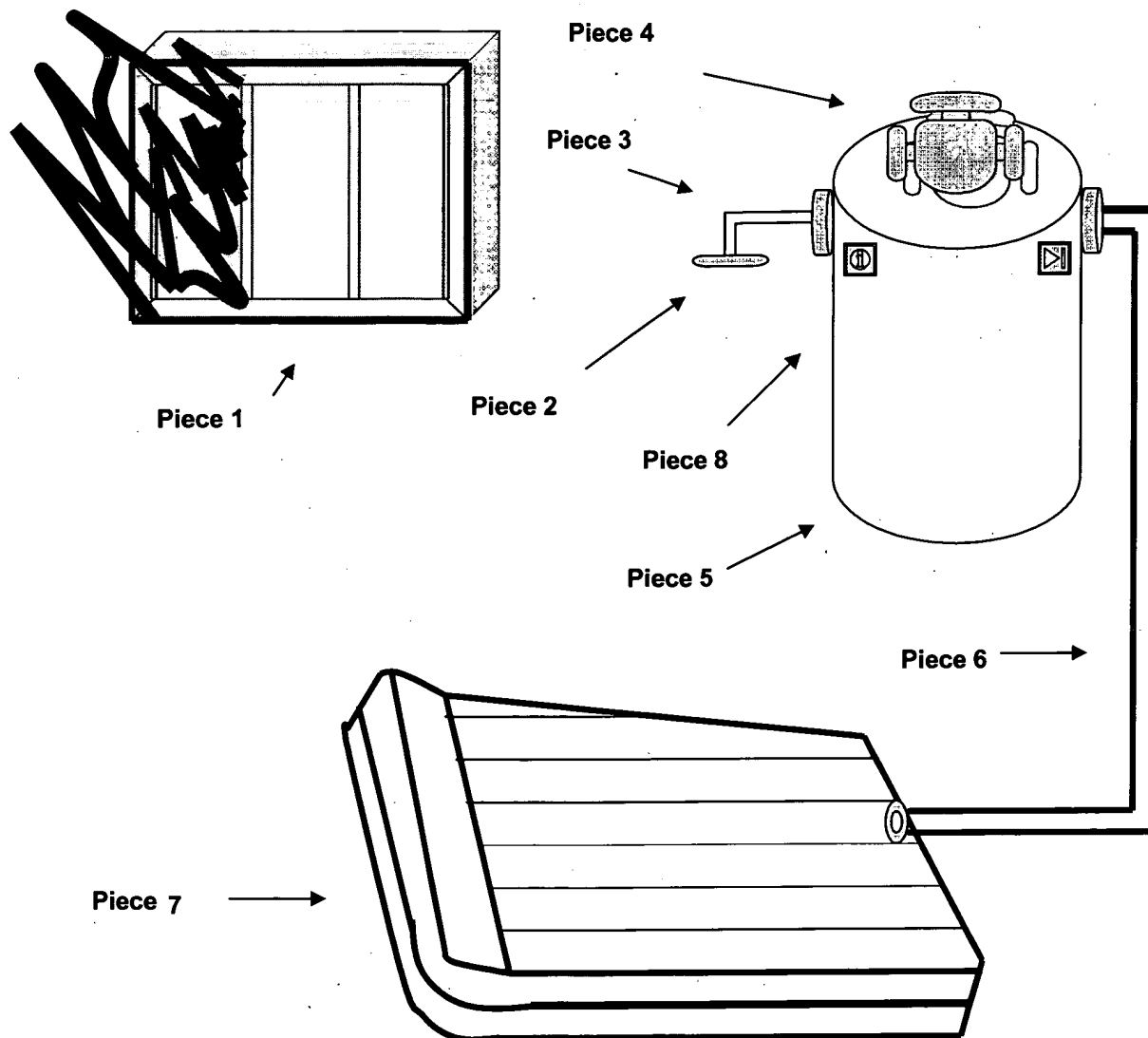
**Sending all documentation on compact disk**

## **INVENTION BACKGROUND**

**Due to the new nature of the Instantaneous Evacuation Tube, no background can be provided.**

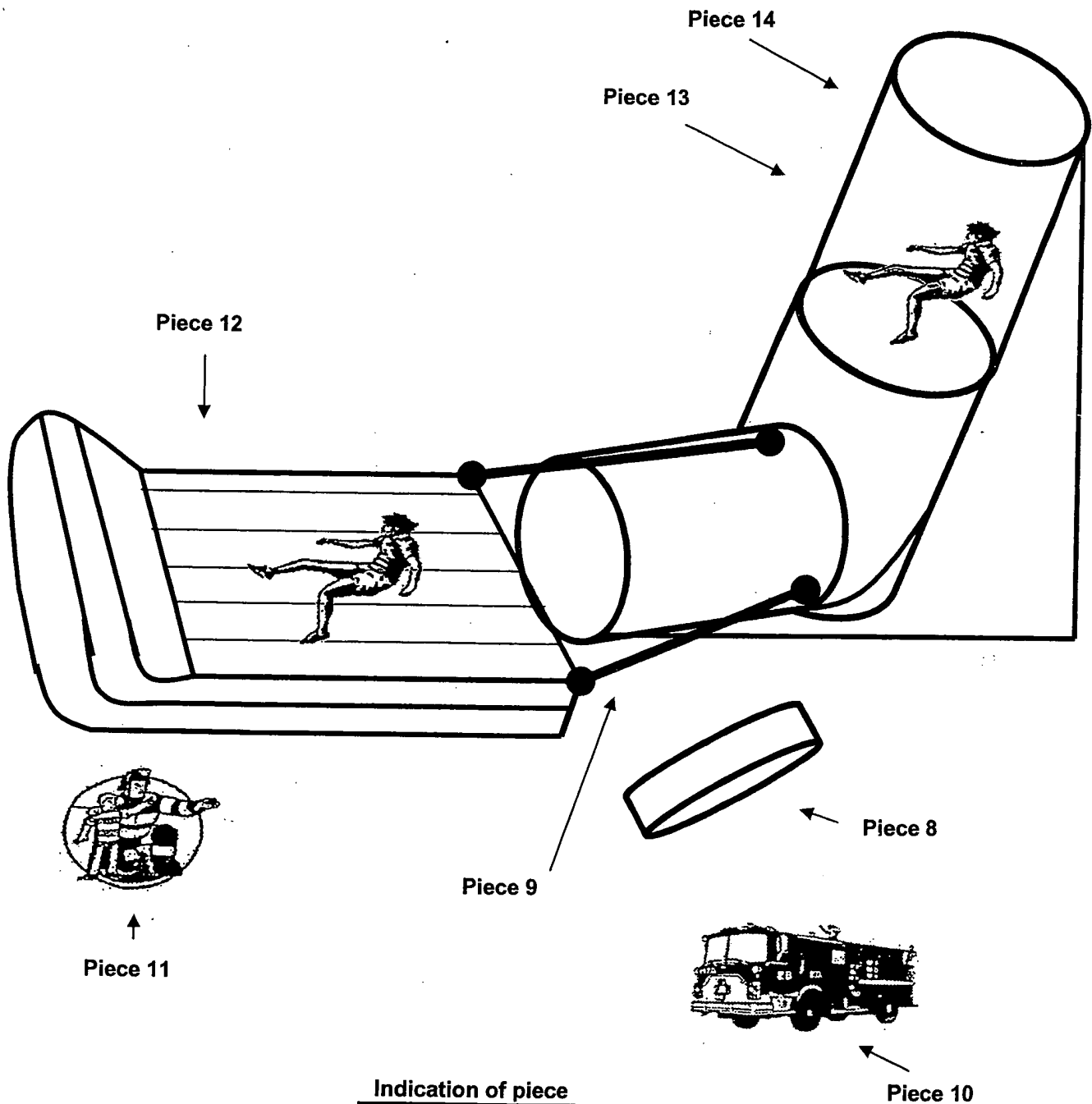
### **A BRIEF SUMMARY OF THE INVENTION**

- The Instantaneous Evacuation Tube is a very good and ingenious invention because it is a covered slide found wrapped around the exterior of a building. There are several advantages to such an evacuation method.**
- The ingeniousness of this invention is shown by its following attributes. Evacuation can be accomplished quickly and safely because each floor has an emergency exit leading into the tube.**
- The efficiency of this invention is shown by the following attributes. The tube provides immediate evacuation to any and everyone within the building, thus reducing the chance of injury and so on. It also allows for those in the building to ignore the slow moving elevators and horribly long staircases. Persons can find themselves evacuated within seconds of entry into the tube. This also allows firemen, police and the like to concentrate more on the evacuated persons arriving at the mat.**
- The safety of the Instantaneous Evacuation Tube is apparent because it is situated outside the building permanently as a contingency. Evacuees are also immediately placed in a safer environment because they are outside the burning building as they descend. This is especially effective for persons finding themselves on upper floors during a fire. For example, in the event that a fire occurs on the eightieth floor, those beneath can use the stairs in relative safety, but those above are essentially trapped. The latter are also faced with the dangerous presence of smoke. Also, consider conventional methods of evacuation such as by helicopter, elevator or staircase. None of these options are very efficient and all are dangerous. Also, firemen need not place themselves within the hazardous environment endangering their own lives in the process.**



#### Indication of piece

- |                |   |
|----------------|---|
| <b>Piece 1</b> | <b>building will result from the presence of a fire</b>               |
| <b>Piece 2</b> | <b>Hand lever attached to the tank</b>                                |
| <b>Piece 3</b> | <b>Rod for a trigger attached to the tank</b>                         |
| <b>Piece 4</b> | <b>The motor for compressed-air tank</b>                              |
| <b>Piece 5</b> | <b>compressed-air-tank</b>  |
| <b>Piece 6</b> | <b>Pipe attached to the tank and going down to the inflatable bed</b> |
| <b>Piece 7</b> | <b>Inflatable bed of compressed-air</b>                               |
| <b>Piece 8</b> | <b>buton on off</b>   |



Indication of piece

- Piece 8 The lid covering the exit off the tube
- Piece 9 Support cables
- Piece 10 firefighters truck arrival on place
- Piece 11 Firerman helping evacuated persons
- Piece 12 inflatable bed
- Piece 13 evacuated persons
- Piece 14 the instantaneous evacuation tube

## **THREE-STEP EVACUATION PROCESS AND DRAWING DEFINITIONS**

### **FIRST EVACUATION STEP**

- The evacuation of a given building will result from the presence of a fire,  
(as shown by piece number 1 corresponding to the image on page 5).
- The emergency handle must be activated in order to begin the evacuation,  
(as shown by piece number 2 corresponding to the image on page 5).
- It is this handle that will trigger a process by which the valve to the emergency air tank will open and simultaneously engage the motor  
(as shown by piece number 3 corresponding to the image on page 5).
- This motor will enable a compressor to expel air from the air tank,  
(as shown by piece number 4 corresponding to the image on page 5).
- The air will flow into a pipe that follows the length of the evacuation tube,  
(as shown by piece number 5 corresponding to the image in page 5).
- Thus, the air flows through the pipe and inflates the inflatable landing mat at the exit,  
(as shown by piece number 6 corresponding to the image on page 5).
- The inflatable mat is positioned within the evacuation tube at the exit point,  
(as shown by piece number 7 corresponding to the image on page 5).
- The mat will thus expand and push the lid covering the exit off the tube,  
(as shown by piece number 8 corresponding to the image on page 6).
- The mat will continue to expand and exit the tube all while being retained near the exit by cables. The mat will then expand fully, forming a safe inflated landing mat,  
(as shown by piece number 9 corresponding to the image on page 6).
- Piece number 8 corresponding to the image on page 5 shows two buttons; one for activating the compressor and the other for turning it off,  
(as shown by piece number 8 corresponding to the image on page 5).

## SECOND EVACUATION STEP

- A person opens the emergency exit door. Please note that all floors have and emergency exit door,  
(as shown by piece number 7 corresponding to the image on page 2).
- The person then jumps into the evacuation tube,  
(as shown by piece number 1 corresponding to the image on page 2).
- It is at this instant that we can consider the person evacuated.
- Please note that it is very important to have a timed delay between subsequent evacuations in order to minimize injuries.
- Two small lights, one red and the other green, will indicate whether there are people within the evacuation tube,  
(as shown by piece number 8 corresponding to the image on page 2).
- Movement detectors will transmit information to these lights using a magic eye,  
(as shown by piece number 3 corresponding to the image on page 2).
- Piece number 2 shows an evacuated person,  
(as shown by piece number 2 corresponding to the image on page 2).
- Piece number 4 shows an arrow indicating the direction persons should take during evacuation,  
(as shown by piece number 4 corresponding to the image on page 2).
- Air traps built into the evacuation tube are planned and necessary to ventilate and filter the tube in case of smoke,  
(as shown by piece number 5 corresponding to the image on page 2).
- Finally, piece number 6 shows a building from which evacuated persons will arrive on the inflated mat positioned at the exit, minutes or even seconds later, depending on the building size,  
(as shown by piece number 6 corresponding to the image on page 2):



### **THIRD EVACUATION STEP**

- The third step deals with the arrival of firefighters who must now extricate those persons on the inflatable mat as quickly, safely and efficiently as possible, helping them off the mat,  
(as shown by piece number 10 corresponding to the image on page 6)
- This will create space for the newly arriving evacuees and prevent an accumulation of evacuated persons on the mat,  
(as shown by piece number 11 corresponding to the image on page 6).
- Piece number 12 shows an inflated mat ready to receive evacuees at the exit of the emergency evacuation tube,  
(as shown by piece number 12 corresponding to the image on page 6).
- Piece number 13 shows a person within the evacuation tube (as shown by piece number 13 corresponding to the image on page 6).
- The evacuation process begins the precise moment that a person jumps into the emergency evacuation tube at the entrance.
- Finally, piece number 14 shows the emergency evacuation tube being used to evacuate persons during a fire,  
(as shown by piece number 14 corresponding to the image on page 6).
- The emergency exit tube is the fastest, most efficient and most secure method that could be used to evacuate persons from a building on fire.

## **DETAILED DESCRIPTION OF THE INVENTION**

**-Upon the realization of the invention, privileged exclusive rights or ownership will be noted and the invention will be defined as the Instantaneous Evacuation Tube. It will be permanently installed around the exterior of any given building, starting at the top and descending to the ground floor at an angle suited for the evacuation of persons in a timely, rapid and safe succession of events. Air traps are installed at each evacuation entrance on each floor in order to filter and remove smoke from the evacuation tube. Each floor will also be equipped with 1) an activation handle, 2) an emergency exit, 3) a compressed air tank, 4) a green and red light installed above the emergency exit, 5) a motion detector installed within proximity of each emergency exit, 6) an inflatable landing mat found at ground level and used to receive the sliding evacuees.**

**-The Instantaneous Evacuation Tube should be made of temperature resistant fiberglass. I have conducted research dating from the tenth of July 2006. Following is a list of materials necessary for the construction of the evacuation tube.**

- 1) Fiberglass sheets**
- 2) Vinylster resin. The information presented herein is from Progress Plastique, situated at 2400 Canadien, Drummondville, Quebec, Canada. They have confirmed to me that they presently have a fiber resin that is resistant to high temperatures. This material can resist over 500 degrees Celsius (1530 degrees Fahrenheit) and meets certain military criteria. This material is called VINYLSTER and its identification number is 510,**
- 3) Halogen powder. Upon the fabrication of the tube, VINYLSTER will be mixed with a powder called Halogen. This powder allows the suppression of heat in the event that flames from the building raise the temperature of the tube,**
- 4) A catalyst. The catalyst mentioned allows the fabrication, molding and hardening of the tube into an adequate shape. In order to increase security during evacuation the tube should also be transparent. In this way evacuating persons can be seen sliding through the tube displaying any apparent or eventual dangers and will not disfigure the building architecturally speaking.**

**-The actual installation method of the Instantaneous Evacuation Tube is left to the engineer due to the varying times and design of different buildings. For example, some new buildings could be constructed with the tube in mind, while older buildings will have to be modified in order to accommodate the evacuation tube. To install or encase the tube, it can be put together in sections with the use of a large crane.**

**-In the event of fire, a person within the building proceeds to activate an emergency handle found on each and every floor. At this moment, an air compressor is activated and a valve is opened. Compressed air escapes through the valve and into a pipe that follows the tube all the way to the exit where it is plugged into and inflatable air mat. This mat is permanently installed within the evacuation tube. The compressed air then inflates the mat, propelling it out of the tube and pushing the tubes exterior lid off.**

The mat is also attached to the tube with cables, effectively retaining and positioning it at an ideal for the landing of evacuees. Once this has occurred, persons begin the actual evacuation by opening the emergency exit door and jumping into the tube in safe succession. NOTE: It is very important to allow a safe delay between evacuees in order to minimize the risk of injury. Motion detectors installed within the tube and in proximity of the emergency exits doors will signal a pair of lights by the use of a magic eye. A green light will show the presence of a safe and empty tube, a red light will show the presence of an evacuee sliding from another floor. This will cause the person to wait for the green light. The red and green light are installed directly over the emergency exit door. The evacuation proceeds with the person jumping into and sliding down the tube at a quick yet safe angle, to the landing mat at ground level. This angle will be determined by the engineer, at the time of installation. The arriving evacuees at ground level will land on the inflated mat and will be greeted and efficiently taken from the scene by firemen. They must systematically and quickly remove evacuees from the landing mat in order to ensure that others arriving on the mat will not collide into those already arrived. NOTE: The air reserves situated on each and every floor will be specially designed with the option to be powered by a generator that will be brought to the scene by the firemen, in the event of a power outage.

## **SUMMARY**

**The Instantaneous Evacuation Tube is permanently installed on the exterior of any given building. The tube is installed from the top and descends around the building all the way to the ground floor exit at an angle that will maximize the speed of evacuation and minimize injury. Each floor is equipped with an emergency exit door and an activation handle. Also found on each and every floor is a compressed air tank, a motion detector installed within the tube and a pair of lights, one red and one green, indicating to the evacuee whether to proceed or not. Within the tube and at ground level is an inflatable mat that will allow evacuees to safely land after having slipped through the tube. In short, the Instantaneous Evacuation Tube provides the safest and most efficient method to evacuate burning buildings. The main advantage presented by this method lies in the fact the firemen can focus on the fire and removal of persons, rather than entering a hazardous environment and placing their own lives at risk. This can decrease the injury and mortality rate amongst both firemen and evacuees. Up to now, death in the event of fire has been due to poor evacuation systems.**